

element in this part of America. Nor is zoology by any means neglected, Chapter xii. being devoted to an account of the Californian marine fauna, illustrated with a photograph of one of the remarkable Pacific hag-fishes of the genus *Bdellostoma*, and a second of the Californian medusa-starfish. Lovers of forest scenery will be enchanted with the beautiful photograph of a Sequoia-forest in California, which forms the most striking feature in the thirteenth chapter; this chapter dealing, not only with the primeval forests of the district, but likewise with the timber-felling industry.

In his concluding chapter, Dr. Doflein presents his readers with a capital account of the Yellowstone Park and its animal wonders, illustrating his description with an excellent photograph of a family party of black bears in their native wilds. The photograph of bisons is, however, by no means so successful as it might be, being, for one thing, on much too small a scale. Still more unsatisfactory is the one on page 175 lettered "Die Amerikanische Gemse (Weibchen)," which is intended to portray the female of the prongbuck. If we are not mistaken, the animal in the foreground is a wapiti hind, while the one in the middle distance might be anything.

To any English reader desirous of keeping up his German by the perusal of a pleasantly written narrative of travel, Dr. Doflein's work may be commended; to his own countrymen it will commend itself. R. L.

#### A BIBLICAL ENCYCLOPÆDIA.

*Encyclopædia Biblica, Critical Dictionary of the Literary, Political and Religious History, the Archaeology, Geography and Natural History of the Bible.* Edited by Prof. T. K. Cheyne and Dr. J. Sutherland Black. Vol. ii. E—K. (A. and C. Black, 1901.) Price 20s. net.

A WORK like this demands a critic whose forte is omniscience, for the articles are written by men who can speak as authorities, and necessarily enter into questions of theology, a province of human thought with which science is only indirectly concerned. This alone makes it difficult to give any notice of the book in a publication strictly scientific. To read through a volume of 1544 closely printed columns of small type would be a herculean task which we do not pretend to have attempted. We have not perused more than a few of the salient articles in the present volume, which, as it contains the letters from E to K, happens to include a large number of exceptional interest. If we remember that even the letter J covers names such as James, Jasher, Jeremiah, Jerusalem, Jesus, Job, John, Jordan, Joshua, Joseph, Judah and Judges we realise the significance of many articles. These seem to be summaries of everything important that has been written on the subject. Indeed, sometimes the variety is a little bewildering to the ordinary reader, who, however, cannot complain of a stinted choice, though the writers generally favour views distinctly progressive. One or two slips, notwithstanding the care with which, obviously, the work has been done, have caught our eye, such as the statement that the vicinity of Jerusalem consists of strata of the Eocene and *Chalk* formations—where Cretaceous should have been written, as the limestone is not the

variety designated chalk; or the obvious clerical error that Esdraelon lies 250 feet *below* the sea-level, which would make it difficult for the river Kishon to reach the Mediterranean. But the topographical articles, which of course have to be largely dealt with from the historical point of view, are generally excellent. For instance, the article "Geography" gives a most interesting account of what was known about that subject by the Old Testament writers. Formerly, no doubt, when the relations of theology and science were ill-understood, questions of Hebrew cosmogony and ethnology were more important than they now are; still there is an antiquarian interest, when the date of a document can be approximately determined, to see how much or how little the Hebrews had ascertained about the rest of the world. Evidently the knowledge of the Old Testament writers hardly extended eastward beyond Persia, or northward so far as the Caucasus, or southward beyond Ethiopia on the African continent, or westward of Greece, excepting Tartessus in Spain or possibly either Sicily or Carthage. If they had any notions of regions lying beyond those limits, such as India or China, these must have been of the vaguest, unless we locate Ophir in Mashonaland, to which identification, however, as we infer from the article on gold, the editor does not incline. The books of the Old Testament cover a long time, and knowledge grew; but we may safely assume that the writer of the ethnographical notices in Genesis x., whatever be their date, either did not know of, or deliberately excluded, the Black and the Yellow races. Probably, indeed, until about the tenth century before our era, the Hebrews had only a very limited knowledge of geography. The article on Egypt is full of information and has been brought down as nearly as possible to date. It is accompanied by three very useful little maps; one, a physical map of the Nile valley, north of Khartoum, another, on a smaller scale, of the Nile and the Euphrates, and a third showing the broader features of the geology. This brings out very clearly the close connection between the Sinaitic peninsula and the mountain region between the river and the Red Sea, and contains much information in a very small space.

A comparison of the historical part of this article with that in Smith's "Dictionary of the Bible," published in 1860, indicates, better than anything, how enormously our knowledge has been increased during recent years. The same is true in regard to the articles on the topography of Jerusalem. No doubt the one in the older work was below the general level, for the editor, owing to some strange infatuation, had accepted as established facts the absurd fancies of the late Mr. James Fergusson. These are properly ignored in the work before us, which treats this difficult and thorny subject in a fair and scholarly fashion. The author may sometimes incline to one view, the reader to another, but evidence is not perverted as it was in the older work. Personally, for instance, we do not believe the Ophel Hill to have been the site of the City of David. The passages supposed to be favourable to this identification are not, in our opinion, of much weight, and the distance of Jebus from any known spring is a difficulty which attaches to many hill forts. Some in our own country could not have endured a close siege for a few days without storage of water, and cisterns were familiar things at Jerusalem.

The western hill, like another Gergovia, is a natural site for a hill fort, while the descending ridge of Ophel, so far as we can infer from our studies of such structures, is exactly the position which their builders would have avoided. Such articles as "Gospels" and "Jesus" introduce us to questions of a character and a theological import which we must not discuss in these columns. Suffice it to say that, while indicating a certain amount of reaction from the extreme vagaries of representatives of the so-called "higher criticism," they express, as a rule, eminently "progressive" views. Some, indeed, are so very advanced that they could not, so far as we can see, be covered by the most liberal interpretation of the Nicene creed. Persons, however, who view with anxiety these removals of ancient landmarks may comfort themselves by observing how many idols of the cave have been set up by one confident discoverer only to be trampled under foot by the next comer. Indeed, on reading some of these efforts of the higher criticism we cannot help being reminded of the famous Historic Doubts, and think that by using similar methods we could prove William the Conqueror to be a person almost mythical and the Battle of Hastings mainly a legend.

T. G. B.

#### OUR BOOK SHELF.

*Plato's Staat.* F. Schleiermacher. Zweite Auflage. C. Th. Siegert. (1901.) Mk. 3.

*John Locke's Versuch über den Menschlichen Verstand.* Zweiter Band. Zweite Auflage. C. Th. Siegert. (1901.) Mk. 3.

*Berkeley's Abhandlung über die Prinzipien der Menschlichen Erkenntnis.* Dr. F. Ueberweg. Dritte Auflage. (1900.) Mk. 2.

*Berkeley's Drei Dialoge zwischen Hylas und Philonous.* Dr. R. Richter. (Leipzig: Dürr'schen Buchhandlung, 1901.) Mk. 2.

THERE is in Germany a widespread appetite for metaphysics. Earlier there than elsewhere scholars and philosophers of an order not far removed from the highest came to recognise that work bestowed on the translation and elucidation of foreign masterpieces in philosophy was the best of trainings in exact thinking and expression. The zeal of von Kirchmann for his educational ideal was untiring, and his industry was appalling. In the result, the *Philosophische Bibliothek* has succeeded in combining low cost and high achievement. It is the more to be regretted that its volumes so often come to pieces in the hand.

Schleiermacher's translation of "Plato's Republic," with von Kirchmann's sporadic notes, "needs no bush." It will not, of course, be much used in England after the labours of Davies and Vaughan and Dr. Bosanquet. It has undergone some revision, but still scorns Greek accents, while its use of breathings is haphazard. Similarly, von Kirchmann's translation of "Locke's Essay" has undergone revision before reissue. Something of the effect of Locke's style vanishes in the translation, but the substance is there. It is only the separate volume of notes which is likely to interest the English public, and that not greatly. Ueberweg's excellent version of the masterwork of Berkeley's earlier idealism has passed into a third edition, advisedly without revision. Its incisive notes possess some value even for those who have studied their Berkeley with the aids supplied by Prof. Campbell Fraser. It has a worthy successor in Dr. Raoul Richter's translation of "Berkeley's Three Dialogues between Hylas and Philonous." If we have not been singularly unfortunate—or fortunate—in

our sampling, Dr. Richter has succeeded as well as the translator of Berkeley could hope to succeed. He adds a straightforward introduction and some luminous notes chiefly on the usage of technical terms. The new series is, to our thinking, superior in form, printing and, above all, in stitching, to the old. The student, for whom the reading of Kant or Hegel in the original is only a hope of the distant future, might be worse advised than to take Dr. Richter's version of the dialogues and ground himself in German philosophical terminology by reading it along with the brilliant original. An English translation of a German "minor masterpiece" at once as excellent as this and as cheap is still to seek.

H. W. B.

*The Fishes of North and Middle America; a Descriptive Catalogue of the Species of Fish-like Vertebrates, found in the Waters of North America, North of the Isthmus of Panama.* By David Starr Jordan and Barton Warren Evermann. Part iv. Pp. ci + 3137-3313; plates I-CCCXCII. (Washington: U. S. National Museum, 1900.)

THE present part concludes this important work, of which we have given a full notice in vol. Ixi of NATURE, p. 362. It commences with a systematic arrangement of the fishes described, which serves not only as a table of contents for all the four parts, but also as an exhibition of the views of the authors as to the genetic relations of American fishes. From it it will be seen that the fish-fauna of North and Middle America, as now understood and as stated by the authors, embraces 3 classes, 30 orders, 225 families, 1113 genera, 325 subgenera, 3263 species and 133 subspecies. "Additional Addenda" follow and occupy some 60 pages; they comprise a number of new genera and species described since the publication of part iii., the majority being the result of investigations made by Dr. Jordan in Mexico, and by Dr. Evermann in Porto Rico. Other additions or corrections regarding nomenclature, relations and distribution of previously known species, are duly attended to.

The bulk of the volume is devoted to the illustrations. In this series are represented about 958 types of fishes, thus, so far as numbers are concerned, surpassing even Cuvier and Valenciennes' "Histoire naturelle des Poissons," in which only about 700 species are figured. With few exceptions, the figures are original, and were drawn for the present work from specimens preserved in American collections, and by means of photography reproduced to a uniform size, the width of an octavo page. As the work has been published by the Smithsonian Institution with the view of bringing it within the reach of the people, no highly artistic and, therefore, expensive finish of the illustrations has been attempted; but they have not lost in accuracy thereby, and will fully answer the purpose of assisting the student of ichthyology in his initial studies, or the layman who seeks for occasional information. They show well the general appearance of the fish, the structure of fins and the arrangement of scales; but scarcely any additional details are given to illustrate the characters on which the numerous genera and species distinguished or adopted by the authors are based.

The illustrations are preceded by an explanatory list, in which the names of the artists, the numbers of the original specimens in the United States National Museum, or other sources whence the drawings were derived, are carefully noted. In fact, no pains have been spared by the authors to render their work instructive and handy for reference and ready use.

Already in our first notice we have testified to the high merits of the work; it renders the rich American fish-fauna more accessible than ever before to scientific ichthyologists throughout the world, and cannot fail to give a powerful impetus to the study of fishes in the authors' own country.

A. G.